

REMARKS

Claims 1-6 are pending in this application. By this Amendment, the specification, claim 1 and drawings are amended. No new matter is added.

Entry of the amendments is proper under 37 C.F.R. §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because e.g. they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

I. Telephone Interview

Applicants appreciate the courtesies extended to Applicants' representative during the October 20, 2003 telephone interview. Applicants separate record of the substance of the interview is incorporated in the following remarks.

II. Election/Restriction

Applicants request that upon allowance of either generic claim 1 or 2, withdrawn claims 3-5 be rejoined and allowed.

III. Objection to the Specification

The specification is objected to as failing to provide proper antecedent basis for claimed subject matter. Specifically, the Office Action alleges that the recitation of "plurality of walls between the grooves" in claim 1 is not supported in the specification.

As discussed during the telephone interview, the specification including the drawings provides ample support for a plurality of walls on the poly-V pulley. For example, on page 11, line 12, the poly-V pulley 5 is described as having a number of grooves 30. As a

pulley having grooves must inherently have walls separating the grooves, the recited "plurality of walls" is supported in the specification.

Furthermore, as clearly shown in the figures, the grooves 30 are separated by walls (see, for example, Figs. 2, 4, 5A, 5B, 6, 7 and 8). Figure 2 is amended to label the walls and the specification is amended to describe the reference number provided in the amended figure. Thus, Applicants respectfully request the objection to the specification be withdrawn.

IV. Claim Rejections Under 35 U.S.C. §103

Claims 1, 2 and 6 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent 5,026,327 to White Jr. et al. (hereinafter "White") in view of JP 10-2402 to Sato. The rejection is respectfully traversed.

As discussed during the telephonic interview, Applicants assert that neither White nor Sato, whether considered alone or in combination, disclose or suggest all of the features recited in the rejected claims. For example, as discussed during the telephonic interview the combined references do not disclose or suggest the features of amended claim 1, wherein the side surfaces of the projections directly face each other to allow confronting side surfaces of adjacent pieces to come into contact with each other.

Additionally, as admitted in the Office Action, White fails to disclose at least six grooves extending in a circumferential direction and a plurality of walls between the grooves ... a poly-V belt being bridged between the crank pulley and the driven poly-V pulley ... wherein the poly- belt is composed of a plurality of pieces substantially divided in an axial direction of the driven poly-V pulley so that each piece of the poly-V belt has more than two and less than six of the projections, as recited in claim 1. The Office Action further admits that White does not disclose respective pieces of the poly-V belts are wound in parallel on the another driven poly-V pulley to position perpendicular to the axial direction thereof so that the engine driving force is transmitted from the crank pulley, via the respective

pieces of the poly-V belts, not only to the alternator but also to the another of the engine auxiliary units, as recited in claim 2.

To overcome the admitted deficiencies, the Office Action combines Sato with White and alleges that it would have been obvious to modify White according to the teachings of Sato.

Applicants respectfully request that before any further consideration of Sato, the PTO should provide a full translation of this Japanese reference. See Ex Parte Gaven, 62 USPQ2d 1680, Bd. Pat. App & Inter. December 17, 2001. As understood, Sato fails to compensate for the deficiencies of White as admitted in the Office Action. For example, paragraph [0002] of Sato discloses that a pulley 4 as shown in Figs. 4-6 is a crank pulley, i.e., a drive pulley and an engine driving force is transmitted from the drive pulley 4 via respective or individual, V-belts 5 and 6 to respective driven pulleys for engine auxiliary units. According to Sato, to easily detect the erroneous hanging of the V-belts 5 and 6 as shown in Fig. 6, a partitioning wall 13 (see Figs. 1-3) is provided around the periphery thereof with a plurality of uneven parts 23 which are recessed and projected in the radial direction of the pulley 14. When the V-belt is erroneously hung and the pulley 14 is rotated, as shown in Fig. 3, an abnormal noise is generated between the partitioning wall 13 and the V-belt 15 due to the uneven parts 23 formed in the partitioning wall 13. Thus, the V-belts 5 and 6, or 15 and 16, do not correspond to the V-belts as recited in rejected claim 1. For example, the V-belts disclosed in Sato are not composed of a plurality of pieces substantially divided in an axial direction of the driven pulley and are bridged between the crank pulley and the single piece of the driven pulley.

Applicants further assert that there is no suggestion in the references to make the combination as alleged in the Office Action. In rejecting claims under 35 U.S.C. §103 it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. To establish prima facie obviousness there must be (1) some suggestion or

motivation in either the references or in the knowledge generally available to one of ordinary skill in the art to modify the references or combine the teachings; (2) a reasonable expectation of success, and (3) the combination must teach or suggest all of the claim features.

As discussed above, the Office Action admits several deficiencies in White and attempts to overcome the admitted deficiencies by combining Sato. When making such a combination, the Examiner must provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine the prior art references to arrive at the claimed invention.

The Office Action alleges that the motivation for making the combination is to improve the safety factor of the belt, and decrease maintenance cost. However, none of the references are attempting to improve the safety factor of the belts. Furthermore, as neither of the applied references addresses the problem being solved in the application, i.e., to increase belt life and reduce belt noise due to flapping and resonance by allowing the belts to come into mutual frictional contact of the confronting side surfaces of the divided poly-V belts (see page 13, lines 12-24), there is no motivation for making the combination. Although, the problem being addressed in White is to reduce belt noise and tension decay, the goal is achieved by changing the dimensions of the rib angle and the belt from 40° to 60°. The problem being addressed in Sato is to "easily and certainly detect the erroneous hanging of a belt." To solve the problem, the detection is carried out by generating an abnormal noise when the mis-hung belt rides onto a partitioning wall having uneven parts. Thus, there is no suggestion in either of the applied references to make such the combination as proposed in the Office Action.

Furthermore, one skilled in the art would not be motivated to reduce belt noise as proposed in White by intentionally generating belt noise as proposed in Sato. Thus, Sato actually teaches away from the reduction of belt noise.

Also, as discussed during the telephonic interview, neither White nor Sato, whether considered alone or in combination, disclose or suggest the recited feature of the amended claims wherein each of the walls is lower than the top surface and the side surfaces of the projections directly face each other to allow confronting side surfaces of adjacent pieces to come into contact with each other. For example, in White, although the walls of the grooves are lower than the top surface of the belt, the side surfaces of the belt projections adjacent to each other do not directly face each other but rather the side surfaces of the belt projections are seated in the grooves, i.e., contact the walls. Similarly, in Sato, the side surfaces of the projections do not face each other but rather are fully engaged with the grooves. Accordingly, even were White and Sato combined, the combination would not include all of the features recited in the rejected claims.

Additionally, even were the combination made, there would be no reasonable expectation of success. As stated above, the problem being solved in the application is to increase belt life and to reduce the flapping and resonance in the belt. Thus, even were the plurality of pieces of a poly-V belt and a pulley with six grooves as described in Sato incorporated into White, such a combination still would not reduce the noise and resonance in a belt because Sato teaches a partition wall on the pulley to separate the belts. Such a pulley would not permit reduction in belt flapping and resonance because the belts would not come into frictional contact with one another.

Finally, the mere fact that the references may be modified in the manner suggested by the Examiner, does not make the modification obvious unless the prior art suggests the desirability of such an application. The references must provide some teaching whereby the combination would have been obvious. It is impermissible for an Examiner to engage in hindsight reconstruction of the claimed invention using the claim structure as a template and selecting elements from references to fill the page. In re Gorham 911 F.2d 982, 986, 18

USPQ2d 1885, 1888 (Fed. Cir. 1991). Applicants assert that the applied art does not suggest the desirability of such a modification, in fact Sato teaches away from White. Thus, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to combine White with Sato without the impermissible use of hindsight.

Regarding claim 6, the Office Action alleges that it would have been well within the level of skill of one of ordinary skill in the art to alter the respective weights per unit length of the poly-V belt, "since such a modification would have involved a mere change in size of a component" because a change in size is generally recognized as being within the level of ordinary skill in the art.

As stated in the previous reply, providing a poly-V belt having respective weights per unit length that are different from one another is not a mere change in a component size and thus is not obvious. Providing the poly-V belt with different respective weights per unit length prevents resonating of the belts at the same frequency thereby reducing belt flap and increasing belt life (see page 7, lines 12-15 of the specification). Accordingly, as there is no suggestion in the applied references that a difference in respective weights per unit length of the pieces of the poly-V belt would provide such a result, the claimed feature is not rendered obvious as alleged in the Office Action.

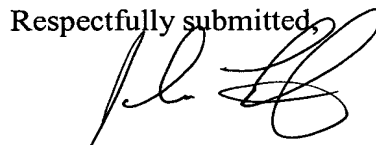
Thus, the combination of White and Sato does not disclose or suggest all of the features recited in the rejected claims and there is no motivation or suggestion to combine the applied reference. Therefore, the factors set forth in Graham v. John Deere Co. have not been established to render a finding of obviousness. Thus, Applicants respectfully request the rejection of claims 1, 2 and 6 under 35 U.S.C. §103(a) be withdrawn.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 6, as well as rejoinder and allowance of withdrawn claims 3-5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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